

CLAIMS

1. A method for improving the cleansing effect on non-delicate washing which is to be washed in a washing machine comprising a laundry drum which is driven intermittently during the washing and rinsing process in alternating directions of rotation, wherein in one phase (A) the laundry drum is accelerated in one direction of rotation (+) to a first rotational speed (n1) significantly above the applicational rotational speed and in the other direction of rotation (-) to a second rotational speed (n2) significantly below the applicational rotational speed, characterised in that within the washing and/or rinsing process the laundry drum is accelerated in at least one further phase (B) in both directions of rotation (+ and -) to speeds (n3) with high washing mechanics and that these phases (A and B) take place successively at least once during the washing and/or rinsing process.
2. The method according to claim 1,

characterised in that

the circumferential speed of the laundry drum at the speed (n3) for high washing mechanics lies in the interval of 1.1 to 1.6 m/s.
3. The method according to claim 1 or claim 2,

characterised in that

directly after the drum has run out to a second speed (n2), the laundry drum is accelerated in the opposite direction of rotation.
4. The method according to any one of claims 1 to 3,

characterised in that

the nominal value of the first speed (n1) is selected so that the items of laundry lying on the drum jacket can fall back to the interior of the drum

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on reducing the speed and the nominal value of the second speed (n_2) has a value at which the falling items of laundry execute a rolling movement in the drum area.

5. The method according to claim 4,

characterised in that

the circumferential speed of the laundry drum at the first speed (n_1) is approximately 3.7 m/s and at the second speed (n_2) less than 1.0 m/s.

6. The method according to any one of claims 1 to 5, especially for the section wherein the laundry drum is driven at a speed above the applicational rotation speed, comprising a device for monitoring foam formation and/or laundry imbalance,

characterised in that

when a specified limiting value for the foam formation is exceeded and/or imbalance occurs, the drive of the laundry drum is interrupted.

7. The method according to any one of claims 1 to 6,

characterised in that

the speeds (n_1 to n_3), the respective acceleration to these speeds and/or their duration (Δt_1 to Δt_6) can be varied as a function of measured values which specify the type and/or quantity of the laundry load.

8. The method according to any one of claims 1 to 7,

characterised in that

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the speeds (n_1 to n_3), the respective acceleration to these speeds and/or their duration (Δt_1 to Δt_6) can be varied as a function of the selected washing programme.

9. The method according to any one of claims 1 to 8,

characterised in that

the durations (Δt_A and Δt_B) and/or the sequence of the phases (A and B) can be varied as a function of measured values which specify the type and/or quantity of the laundry load.

10. The method according to any one of claims 1 to 9,

characterised in that

the durations (Δt_A and Δt_B) and/or the sequence of the phases (A and B) can be varied as a function of the selected washing programme.

11. A washing machine for implementing the method according to any one of claims 1 to 10 comprising a speed control device for the drive motor of the laundry drum, characterised in that the speed control device can generate control signals for the drive motor such that the laundry drum is intermittently driven in alternating directions of rotation at respectively different speeds.

12. The washing machine according to claim 11 comprising a device for establishing and evaluating foam formation inside the lye container and/or the developing laundry imbalance,

characterised in that

the speed control device generates control signals for the drive motor and when a specified foam and/or imbalance limit is exceeded, the drive motor is switched off by these control signals.

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13. The washing machine according to claim 11 or claim 12,

characterised in that

the speed control device generates control signals for the drive motor by which means the duration of the individual intervals (Δt_1 to Δt_6) and the duration of the phase (Δt_A to Δt_B) and/or the sequence of the phases of the washing and/or rinsing process can be varied.

14. The washing machine according to any one of claims 11 to 13 comprising a device for establishing and evaluating the type and/or quantity of laundry items,

characterised in that

the formation of control signals for the drive motor by the speed control device is dependent on the type and/or quantity of the laundry items to be treated.